

transverse and plane. The elytra are rounded at the apex, and the sides are not abruptly vertical. The whole upper surface is clothed with short, erect, dusky bristles. The colour above is greyish tawny, with the following rounded black spots—one in the middle of the forehead and one on the occiput, four in quadrangle on the disk of the thorax (besides one on each flank), and four on each elytron, placed in a line from the shoulder to near the apex, the apical one being much the smallest. The under surface, legs, and antennæ are black, clothed with fine grey pile, the base of the third to the eleventh joints (with the exception of the fifth) being grey.

Japan. From the collection of the late Mr. W. W. Saunders.

Glenea chrysochloris.

S. Swinhoei affinis, at differt corpore metallico-squamoso. Subgracilis, nigra, squamulis argenteo-viridibus dense vestita, et passim nigro-setosa; thorace maculis duabus elongatis medianis alteraque minore laterali nigris; elytris utrinque maculis duabus angulatis alteraque postica C-formi nigris. Long. $7\frac{1}{2}$ lin. ♂ ♀.

Differs from the allied *G. Swinhoei* by the metallic-coloured clothing of the body. In this respect it agrees with the East-Siberian *G. metallescens* (*Saperda id.*, Motsch.), from which its large black markings conspicuously distinguish it. The elytral spots are, on each side two large and angular, placed in succession on the disk before the middle, and one describing nearly an oval between the middle and the apex; the shoulders and lateral carinæ of the elytra are also black. The elytra are briefly truncated at the apex, with a short tooth at the external angle of the truncature. The apex of the tibiæ is black, the tarsi above pale blue. The antennæ are black, with the basal joints more or less marked with blue.

Yezo; on elm trees. Taken by M. Jean Van Volxem (coll. H. W. Bates and G. Lewis).

PROCEEDINGS OF LEARNED SOCIETIES.

GEOLOGICAL SOCIETY.

November 5, 1879.—Henry Clifton Sorby, Esq., F.R.S.,
President, in the Chair.

The following communications were read:—

1. "On the Fish-remains found in the Cannel Coal in the Middle Coal-measures of the West Riding of Yorkshire, with the description of some new Species." By James W. Davis, Esq., F.G.S., &c.

The remains described by the author were from a bed of Cannel

Coal about 400 feet above the base of the Middle Coal-measures, and were chiefly obtained from this bed at the Tingley Colliery. The author described the general geological structure of the district. At Tingley the fish-remains were stated to occur in greatest abundance between the Cannel Coal and the "hubb;" but they are also found in both those portions of the deposit. Of known species the author has identified *Cœlacanthus lepturus*, *Ctenodus elegans*, *Megalichthys Hibberti*, *Rhizodopsis*, sp., *Palæoniscus*, sp., *Gyracanthus formosus*, *Ctenacanthus horridus*, *Diplodus gibbosus*, *Ctenoptychius pectinatus*, *Helodus simplex*, teeth of *Cladodus* and *Petalodus*, scales of *Rhizodus*, ribs and bones of *Ctenodus*, *Pleuracanthus lævissimus*, and six other species, and the following, which are described as new forms—(1) *Compsacanthus triangularis*, (2) *C. major*, and (3) *Ostracacanthus dilatatus*, the type of a new genus resembling *Byssacanthus*, Agass. The teeth of *Cœlacanthus* were said to be small and sharply pointed: they have not been found attached to the jaw; but in certain specimens of the latter the alveolar spaces are well shown, extending in a single row along the rami. The air-bladder of this genus is also said to be preserved, and to present some resemblance to the bony air-bladders of Siluroid fish inhabiting the fresh waters of Northern India; and, in general, the author dwelt at considerable length upon the possible relationships existing between the fishes whose remains he described and the Teleostean Siluroids and *Ostracion*.

2. "On the Skull of *Argillornis longipennis*, Owen." By Prof. R. Owen, C.B., F.R.S., F.G.S., &c.

In this paper the author described a fragmentary cranium from the London Clay of Sheppey, from which it was procured by W. H. Shrubsole, Esq., who also furnished him with the humerus described in a former paper under the name of *Argillornis longipennis**. In the present specimen the lower jaw and the fore part of the upper jaw are deficient. The author described the characters presented by the specimen in detail, and stated that, like those of the humerus previously described, they seemed to approximate the fossil most nearly to the Albatross among existing birds, although, like *Odonopteryx*, it differed from *Diomedea* and also from the Cormorant and the Totipalmates generally, in the absence of the basirostral external nares and of the supraorbital gland-pits. The present fossil differs from *Odonopteryx* in having the fore part of the frontal broader and the upper tract of the bill less defined, as also in some other characters; but no comparison of the palatal structure can be made upon the existing specimens. In point of size, taking the Albatross as a term of comparison, this skull may well have belonged to a bird with wings of the extent indicated by the humerus already described; and the resemblance of the skull to that of the Albatross would also seem to be confirmatory of the specific collocation of the two specimens. The presence of four small pits

* Quart. Journ. Geol. Soc. vol. xxxiv. p. 124.

or perforations on the only part of the alveolar border which appears to be uninjured, leads the author to conjecture that the bird may have been dentigerous.

MISCELLANEOUS.

JOHN MIERS, F.R.S.

By the death of the late J. Miers, F.R.S., science has lost one of the most industrious systematic botanists of the present day, and one who was formerly a frequent contributor to the pages of this journal. Born in London, on the 25th of August, 1789, of a Yorkshire family, Mr. Miers, in early years, showed a marked inclination for scientific pursuits; and, although mainly occupied with his father in his business as a jeweller, he found time for the study of the physical sciences, especially of chemistry and mineralogy. Chemistry was at that period of his life his favourite study; and he undertook a series of important researches which led to the publication, in 1814, of two papers on the nature of azote, in Thomson's 'Annals of Philosophy.' At this time he made the acquaintance of Michael Faraday, and of many others who subsequently distinguished themselves in various branches of science. In 1818 he married. Henceforward the whole tenour of his life was changed. He accepted an invitation from his friend Lord Cochrane (afterwards Earl Dundonald) to proceed to Chile, to assist in the erection of very extensive machinery for the reduction and manufacture of copper—an undertaking in which they were jointly interested. He landed at Buenos Ayres, crossed the Pampas and Cordilleras, and remained in Chile for upwards of six years, during which period, as he was unable to continue his chemical researches, he turned his attention to the study of the natural history of the country, at that time almost a *terra incognita* to botanists. He was as yet wholly unacquainted with the elements of botany, and had no books to assist him in his studies; but he spent his leisure time in making drawings and dissections of the plants that he collected during his journey across the continent and in his travels in Chile. His energy and enthusiasm in collecting may be estimated by the fact, mentioned in his subsequently published work, that he made upwards of two hundred analytical drawings of plants, illustrated by descriptions, and collected materials for nearly as many more. These were of the greatest assistance to him in his subsequent career. On his return to England in 1825 he made the personal acquaintance of both Robert Brown and Dr. Lindley, and during his few months' stay arranged for the publication of his 'Travels in Chile and La Plata.' This work, which appeared in 1826, in two volumes, illustrated with maps and engravings prepared from his own drawings, was long regarded as the chief authority on the geography of the country, and on the manners and customs of the people with which it dealt. On returning to Buenos Ayres he